

The Adjutant General



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

RECEI

NOV - 7 1994

November 2, 1994

Mr. Robert Cutler
US Environmental Protection Agency
Washington Operations Office
300 Desmond Drive S.E.
Lacey, Washington 98503

Dear Mr. Cutler:

Enclosed for your review are an Addendum to the Washington National Guard Site Characterization Report, Toppenish Facility, Toppenish, Washington (beneficial use survey) and a Quarterly Progress Report, WNG Toppenish, August 1994.

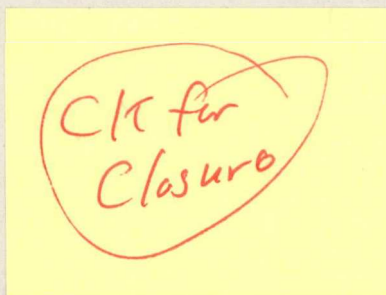
I will continue to keep you informed as remediation progresses. If you have any questions please contact me at (206) 512-8466.

Sincerely,

A handwritten signature in black ink, appearing to read "Ted Arnold".

Ted Arnold
Environmental Program Manager
Washington Military Department

Enclosure



USEPA REG



0000310



The Adjutant General



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Ted Arnold
Environmental Program Manager
Washington Military Department

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USEPA REG



0000310





**BURLINGTON
ENVIRONMENTAL**

RECEIVED
OCT 31 1994
FMO

October 26, 1994
Project 626386

Mr. Ted Arnold
Washington State Military - Facility Engineering
Camp Murray, Building 36
Tacoma, WA 98430

Dear Mr. Arnold:

**SUBJECT: QUARTERLY PROGRESS REPORT, WNG TOPPENISH,
AUGUST 1994**

This report summarizes Burlington Environmental Inc.'s (Burlington) activities at the WNG Toppenish facility during the month of August 1994. Included in this report is a summary of the groundwater monitoring results that was collected in August 1994 and a budget status summary for the project.

Description of Work Completed

The following tasks were completed during this reporting period:

1. Previous waste water was disposed.
2. Previous soil cuttings were taken to Pasco Landfill and disposed.
3. Groundwater samples were collected.
4. Soak-ease was installed in MW1, MW-2, MW-3.
5. MW-7 well monument was replaced.
6. Soak-ease treatment was checked.

Activities and Findings

Five drums of purge water from the previous round of groundwater sampling were disposed on August 23, 1994. The drums were transported to the nearest manhole, and under the supervision of the City of Toppenish, the water was emptied into the sewer.

Burlington Environmental Inc.
Technical Center

P.O. Box 3552 • Seattle, WA 98124-3552

955 Powell Avenue Southwest • Renton, WA 98055

Phone 206/227-0311 • Main FAX 206/227-6191 • Laboratory FAX 206/227-6196



On the same day, approximately 5000 pounds of soil cuttings were transported to the Pasco Landfill at Pasco, Washington, and disposed there.

MW-7. Water was purged from the wells using an ISCO High Volume Peristaltic Pump. Clean polyethylene (PET) tubing was inserted into the well, below the water table, to a point midway in the screen section. The PET tubing was connected to Silicone tubing which goes through the peristaltic pump. The discharge end of the pump was connected to the input valve of the Accuwell 820 Controller.

The Accuwell 820 Controller contains a sensor pack, which measures water quality parameters pH, dissolved oxygen (D.O.), conductivity, temperature, and oxidation-reduction potential (ORP), and a flow meter which measures the amount of water flowing through the controller. Water from the pump flows into the sensor pack, then through the flow meter. Water quality readings are taken automatically every 2 liters and recorded on hard copy by the 820 Controller.

When the D.O. and ORP readings are within 10% for two consecutive readings, the water purging from the well is considered representative and the 820 Controller indicates that the well is ready to sample. The purge water flows directly from the 820 Controller into a 55 gallon drum. Once the well is ready to be sampled, the discharge tube from the peristaltic pump is disconnected from the 820 Controller and the sample jars filled. After each well was sampled, the tubing was discarded and replaced by new tubing for the next well. A summary of the groundwater sample results for all sampling periods is presented in Table 1. Attachment A includes the analytical results package provided by the laboratory for the August 1994 sampling event. The data in Attachment A have been reviewed for quality assurance and have been found to be acceptable for the intended purpose.

Soak-ease product recovery system was installed in wells MW-1, MW-2, MW-3 on August 24, 1994. Each soak-ease was situated such that the mid point of the soak-ease intersected the water table. The only well with visible evidence of product was well MW-3. A sheen was noted on top of the water table.

On August 31, 1994, the well monument for MW-7 was replaced. The soak-ease in the three wells was checked for product. MW-3 was the only well with any product absorbed onto the absorbent pad of the soak-ease. Approximately 3 inches of light brown product was visible at the lower end of the tube. An HNu-PID was used to determine if there was any product on the other two installed soak-ease. A zero reading was indicated for both MW-1 and MW-2.

Page 3
Mr. Ted Arnold
October 26, 1994

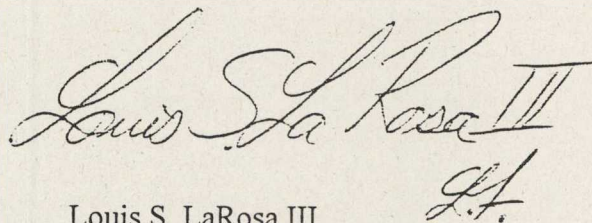
Recommendations

The soak-ease placed in MW-1 and MW-2 show no sign of floating product in the wells, either visibly or as indicated with the HNu-PID. It is Burlington's recommendation that these two wells be included in the next round of groundwater sampling. The cost for analysis will be an additional \$140.63 per well, with an additional hour in labor per well. This amounts to a cost of approximately \$264.63 per well.

If you have any questions regarding this report please give me a call at (206) 227-6180.

Sincerely,

BURLINGTON ENVIRONMENTAL INC.

A handwritten signature in cursive script that reads "Louis S. LaRosa III". Below the main signature, there is a smaller, stylized signature that appears to be "L.S.".

Louis S. LaRosa III
Project Manager

Attachments: Table 1
Attachment A - Analytical Results
Attachment B - Budget Status Summary

Table 1

**TOPPENISH GROUNDWATER SAMPLING
ANALYTICAL RESULTS**

Well #	Sampling Event	Analytical Results		
		TPH-D mg/l	Total Lead mg/l	Dissolved Lead mg/l
	mm/yy			
MW-4	Aug-92	0.79	0.1	<0.005
MW-4	Aug-94	ND	0.003	ND
MW-4-W2D*	Aug-94	ND	ND	ND
MW-5	Aug-92	1.00	0.29	<0.005
MW-5	Aug-94	ND	0.005	ND
MW-6	Aug-92	0.62	0.13	<0.005
MW-6	Aug-94	0.31	ND	ND
MW-7	Aug-92	0.62	0.012	<0.005
MW-7	Aug-94	ND	ND	ND

* Indicates duplicate collected

MEMORANDUM

DATE: October 23, 1994

Project 626386

TO: David Broten

FROM: Kathy Blaine

SUBJECT: Analytical Data QA Review

I have completed a review of the analytical data for five water samples collected on 8/24/94 and listed on COC # 8256. The samples were analyzed for the Washington State TPH method, total lead, and dissolved lead by Sound Analytical. The data evaluation was conducted in accordance with the USEPA Data Validation Functional Guidelines and the method specific Quality Control (QC) criteria. The items that were assessed included method blanks, matrix spike/matrix spike duplicate (MS/MSD) information, and holding times.

No deviations from the accepted QC criteria were noted. All data as reported by the laboratory is considered valid and usable. If you have any questions, or need additional information, please feel free to contact me.

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

TRANSMITTAL MEMORANDUM

DATE: September 1, 1994

TO: David Broten
Burlington Environmental Technical Services

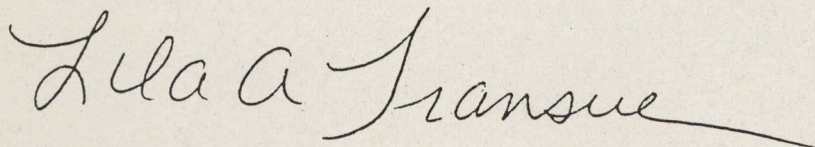
PROJECT: Toppenish WNG
P. O. No. 44982

LABORATORY NUMBER: 42715

Enclosed are the original and one copy of the Tier II data deliverables package for Laboratory Work Order Number 42715. Five samples were received for analysis at Sound Analytical Services, Inc., on August 25, 1994.

Should there be any questions regarding this data package, please do not hesitate to call me at (206) 922-2310.

Sincerely,



Lila A. Transue
Project Manager

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Burlington Environmental Date: September 1, 1994
Technical Services

Report On: Analysis of Water Lab No.: 42715

IDENTIFICATION:

Samples received on 08-25-94

Project: Toppenish WNG

ANALYSIS:

Lab Sample No. 42715-1

Client ID: MW-6-W2

WTPH-D

Date Extracted: 8-31-94

Date Analyzed: 8-31-94

Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>	<u>Flag</u>
Diesel (> C12 - C24)	0.31	0.25	

SURROGATE RECOVERY, %
o-terphenyl

65

Total ICP Metals Per EPA Method 200.8

Date Analyzed: 8-29-94

Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

Dissolved ICP Metals Per EPA Method 200.8

Date Analyzed: 8-29-94

Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

ND - Not Detected

PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental Technical Services
Project: Toppenish WNG
Lab No. 42715
September 1, 1994

Lab Sample No. 42715-2

Client ID: MW-5-W2

WTPH-D
Date Extracted: 8-31-94
Date Analyzed: 8-31-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>	<u>Flag</u>
Diesel (> C12 - C24)	ND	0.25	
<u>SURROGATE RECOVERY, %</u> o-terphenyl	88		

Total ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	0.005	0.003

Dissolved ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental Technical Services
Project: Toppenish WNG
Lab No. 42715
September 1, 1994

Lab Sample No. 42715-3

Client ID: MW-4-W2

WTPH-D
Date Extracted: 8-31-94
Date Analyzed: 9-1-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>	<u>Flag</u>
Diesel (> C12 - C24)	ND	0.25	
<u>SURROGATE RECOVERY, %</u> o-terphenyl	77		

Total ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	0.003	0.003

Dissolved ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental Technical Services
Project: Toppenish WNG
Lab No. 42715
September 1, 1994

Lab Sample No. 42715-4

Client ID: MW-4-W2D

WTPH-D
Date Extracted: 8-31-94
Date Analyzed: 9-1-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>	<u>Flag</u>
Diesel (> C12 - C24)	ND	0.25	
<u>SURROGATE RECOVERY, %</u> o-terphenyl	76		

Total ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

Dissolved ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental Technical Services
Project: Toppenish WNG
Lab No. 42715
September 1, 1994

Lab Sample No. 42715-5

Client ID: MW-7-W2

WTPH-D
Date Extracted: 8-31-94
Date Analyzed: 9-1-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>	<u>Flag</u>
Diesel (> C12 - C24)	ND	0.25	
<u>SURROGATE RECOVERY, %</u> o-terphenyl	64		

Total ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

Dissolved ICP Metals Per EPA Method 200.8
Date Analyzed: 8-29-94
Units: mg/L

<u>Parameter</u>	<u>Result</u>	<u>PQL</u>
Lead	ND	0.003

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

QUALITY CONTROL REPORT

WTPH-D (Diesel Range Organics)

Client: Burlington Environmental Technical Services
Lab No: 42715qcl
Units: mg/L

Date Extracted: 8-31-94

Date Analyzed: 8-31-94

METHOD BLANK

Blank No. 046R0201.D

Parameter	Result	PQL
Diesel	ND	0.25
<u>SURROGATE RECOVERY</u> o-terphenyl	76	

ND = Not Detected

PQL = Practical Quantitation Limit

BLANK SPIKE

BS No. 047R0201.D

Parameter	BS Result	BS Amount	BS %R
Diesel	297	502	59

%R = Percent Recovery

BS = Blank Spike

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

QUALITY CONTROL REPORT

Total Lead

Client: Burlington Environmental Technical Services
Lab No: 42715qc2
Units: mg/L
Date Analyzed: 8-29-94

METHOD BLANK

Parameter	Result	PQL
Lead	ND	0.003

ND = Not Detected

PQL = Practical Quantitation Limit

DUPLICATE

Dup No. 42715-1

Parameter	Sample	Duplicate	RPD
Lead	ND	ND	NC

RPD = Relative Percent Difference

NC = Not Calculated

MATRIX SPIKE

MS No. 42715-1

Parameter	Sample Result	Spiked Sample Result	Spike Added	%R
Lead	ND	0.076	0.10	76

%R = Percent Recovery

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

QUALITY CONTROL REPORT

Dissolved Lead

Client: Burlington Environmental Technical Services
Lab No: 42715qc3
Units: mg/L
Date Analyzed: 8-29-94

METHOD BLANK

Parameter	Result	PQL
Lead	ND	0.003

ND = Not Detected

PQL = Practical Quantitation Limit

BURLINGTON ENVIRONMENTAL

10 West Sand Bank Road
 P.O. Box 230
 Burlington, IL 62236-0230
 (618) 341-1121
 (618) 341-5120 FAX

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 8256

PROJECT NAME		PROJECT NUMBER		MAJOR TASK		NO. OF CONTAINERS	TYPE OF ANALYSIS			ICED	CHEMICALS ADDED	PRESERVATIVES	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
SAMPLE LOCATION		TIME	COMP	GRAB	WTPH-D		Total Lead	Dissolved Lead					
Wish WANG													
21386													
Analytical Service													
12					mul-1-W2	3	1	1	1				
12					mul-5-W2	3	1	1	1				
12					mul-11-W2	3	1	1	1				
0					mul-11-W2D	3	1	1	1				
12					mul-7-W2	3	1	1	1				
Request Data on Batch MS/MSD													

RELINQUISHED BY

RECEIVED BY

SIGNATURE		DATE	TIME	SIGNATURE		DATE	TIME
<i>[Signature]</i>		8-25-94	8:30	<i>[Signature]</i>		8-25-94	11:30 AM
<i>[Signature]</i>		8-25-94	11:41 AM	<i>[Signature]</i>		8-25-94	11:41 AM
SHIPPING NOTES				LAB NOTES			
P.O.# 44982							
Sealed at 8:30 on 8-25-94							

Attachment B
Budget Status Summary

Phase	September Invoice	October Invoice	Total Invoiced	Percent Complete
2010 - First Qtr. Sampling	\$2,734.52	\$849.27	\$3,583.79	100%
2020 - Maintenance	\$0.00	\$1,000.00	\$1,000.00	100%
2030 - Qrtly. Sampling	\$0.00	\$0.00	\$0.00	0%
2040 - Analytical	\$0.00	\$562.50	\$562.50	25%
2050 - Beneficial Use Study	\$0.00	\$0.00	\$0.00	0%
2060 - Qrtly. Prog. Rpt.	\$0.00	\$0.00	\$0.00	0%
2070 - Final Rpt.	\$0.00	\$0.00	\$0.00	0%
2080 - Previous Waste Disposal	\$1,998.19	\$639.17	\$2,637.36	100%
2090 - New Waste Disposal	\$0.00	\$0.00	\$0.00	0%
Total Invoice	\$4,732.71	\$3,050.94		

ADDENDUM TO
WASHINGTON NATIONAL GUARD
SITE CHARACTERIZATION REPORT
TOPPENISH FACILITY
TOPPENISH, WASHINGTON

October 1994

Prepared for:

Washington State National Guard
Tacoma, Washington

Project # 626386

Prepared by:



BURLINGTON
ENVIRONMENTAL

TECHNICAL SERVICES DIVISION
P.O. Box 3552
Seattle, Washington 98124-3552
(206) 227-0311

Per Washington Administrative Code (WAC) 173-340-450 a beneficial use of groundwater survey was conducted for the Washington National Guard (WNG) Toppenish Facility. Five subjects were included in this survey: information on nearby wells, surface and groundwater quality, local land use and potential pathways for contaminated water and free product migration

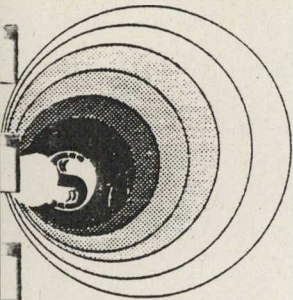
Information on nearby wells was obtained from the Central District office of the Washington State Department of Ecology (Ecology) in Yakima. A search of all well logs on file in sections 2,3,10 and 11 of Township 10 North, Range 20 East was conducted. The closest wells to the site are located in the northwest quarter of the northeast quarter of section 10 of Township 10 North, Range 20 East. These wells consist of a group of 3 wells categorized as industrial and located at the Del Monte Plant 122, and a test well located at Western Farm. These four wells are approximately 1300 feet east of the WNG Toppenish facility. With a groundwater flow direction to the northwest identified in the Limited Site Characterization Report this would place these wells in a cross-gradient relationship with the Toppenish facility. The nearest identified well downgradient of the facility is a test well installed at the school bus yard at the corner of Franklin Avenue and Fir Street in 1991. This well is approximately 3800 feet to the north-northwest of the facility. Ecology records indicate that no domestic water wells are present downgradient of the facility in this search area. Copies of all well logs obtained from Ecology are attached to this report.

The nearest surface water body to the Toppenish facility is an irrigation flume located approximately 2000 feet to the south. Given its location relative to the facility, impact to this irrigation flume from the UST release would not be expected.

Groundwater quality at the site is impacted by the presence of dissolved petroleum hydrocarbons in the upper section of the aquifer. Free product has also been found at the site and is currently being remediated. WNG has instituted a quarterly monitoring system for the wells onsite. Four quarters of data will be collected from these wells to monitor the extent of the dissolved contaminant and the status of the free product removal effort.

Local land use around the Toppenish facility consists of mixed residential, industrial. The facility is located within the city limits of Toppenish.

Potential conduits for the migration of free product and contaminated water consist of movement through the porous sands and gravels beneath the facility. This movement will be with the groundwater flow identified in the Limited Site Characterization Report. No preferential pathways have been identified such as storm sewers or other utility ways.



SOIL SAMPLING SERVICE, INC.

1415 MERIDIAN EAST, PUYALLUP, WA 98371-1399

FEDERAL ID #: 91-0762274 WA CONT. #SOIL SS*344LO

Geotechnical, Engineering & Mineral Exploration Drilling • Instrumentation • Horizontal Drains

Ground Water Monitoring • Hazardous Waste Identification • Well Abandonments

(206) 927-3173

TELEX: 466762

FAX: (206) 927-3478

RESOURCE PROTECTION WELL REPORT

PROJECT NAME: School Bus Garage

WELL IDENTIFICATION NO.: MW-1,2

DRILLING METHOD: Air Rotary

DRILLER: Harold Niswander

SIGNATURE: Harold Niswander

CONSULTING FIRM: SAIC

REPRESENTATIVE: Barbara Blackburn

JOB #: W2959 START CARD NO.: 062474

COUNTY: Yakima CITY: Toppenish

LOCATION: NW 1/4 SW 1/4 1/4

SEC.: 3 TOWN: 10N RANGE: 20E

DATUM: _____

WATER LEVEL ELEVATION: _____

INSTALLED: 4-19-91

DEVELOPED: _____

WELL DATA	AS BUILT	FORMATION DESCRIPTION
monument 1' concrete 3' chips Colorado Sand	4" x 5' blank 4" x 10' x 10' screen	0 Sands + Gravels 15'
15'	15'	15'

and distance from section or subdivision corner

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

(6) CONSTRUCTION DETAILS:

Perforations: Yes ☐ No ☐

Work started....., 19..... Completed....., 19.....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

License No. Date, 19....

F. No. 7356—OS—(Rev. 4-71).

(USE ADDITIONAL SHEETS IF NECESSARY)

(1) OWNER: DEL MONTE CORPORATION #122 P. O. Box 71, Toppenish, Wash. 98941
(2) LOCATION OF WELL: County Yakima NW NE 10 10 20E
Bearing and distance from section or subdivision corner: 440' East & 1230' North from Center of Sec 10

(3) PROPOSED USE: Domestic ☐ Industrial ☒ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Number of well 2
New well ☐ Method: Dug ☐ Bored ☒
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 12 inches.
Drilled ☐ Depth of completed well 240 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 12 diam. from 0 ft. to 105 ft.
Threaded ☒ 10 diam. from 100 ft. to 218 ft.
Welded ☐ diam. from ft. to ft.

Perforations: Yes ☒ No ☐
Type of perforator used
SIZE of perforations 3/8 in. by 2 in.
12 Per Ft. perforations from 50 ft. to 218 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☒ No ☐ Size of gravel Unknown
Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☐ To what depth? ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name Peerless Pump
Type 6 Inch H.P. 60

(8) WATER LEVELS: Land surface elevation
Static level 20 ft. above mean sea level
Artesian pressure None ft. below top of well Date
Artesian water controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom?
Yield: 600 gal/min. with 12.5 ft. drawdown after 24 hr.

Recovery data (time taken to zero when pump turned off) (water level measured from well top to water level)
Time Water Level Time Water Level Time Water Level

Date of test
Bailer test gal/min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: Describe in color, character, etc. the material and structure from thickness of aquifer and the kind and nature of the material in stratum penetrated, with at least one entry for each change of formation.

MATERIAL FROM

Same As Well #1

Located approximately 300
Ft. North of Well #1

DEPARTMENT OF GEOLOGY
SPRINGFIELD OFFICE

Work started 4-1 1947 Completed 5 1947

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report true to the best of my knowledge and belief.

NAME Well Driller Deceased
(Person, firm, or corporation) (Type or print)

Address

[Signed] (Well Driller)

License No. Date

3/18/74

WATER WELL REPORT

STATE OF WASHINGTON

Application No. 14-37

Permit No.

(1) OWNER: Del Norte Corporation Address: Box 71, Topekanish, Washington 98948
(2) LOCATION OF WELL: County Yakima S4 SW 1/4 NE 1/4 Section 10 T10 N. R. 20 W. E.
Bearing and distance from section or subdivision corner 625 N. east, 370 N. north of center of Sec. 10.

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☒

(4) TYPE OF WORK: Owner's number of well 1
New well ☐ Method: Cug ☐ Bored ☒
Deepened ☐ Casing ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well _____ inches
Drilled _____ ft. Depth of completed well 42 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 - Diam. from _____ ft. to _____ ft.
Threaded ☐ - Diam. from _____ ft. to _____ ft.
Welded ☐ - Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒

Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
perforations from _____ ft. to _____ ft.
perforations from _____ ft. to _____ ft.
perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒

Manufacturer's Name _____ Model No. _____
Type _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☐ No ☒ To what depth _____ ft.
Material used on seal _____
Did any strata contain uranous water? Yes ☐ No ☒
Type of water? _____ Depth of strain _____
Method of sealing strata off _____

(7) PUMP: No manufacture or name _____ H.P. _____
Type: _____

(8) WATER LEVELS: Load-surface elevation _____ ft.
Static level 42 ft. before top of well Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown to lowest water level is _____ ft.
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: 220 gal/min. with _____ ft. drawdown after _____ hrs.

Recovery data (Time taken to rise when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Batter test _____ gal/min. with _____ ft. drawdown after _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? ☐ Yes ☒ No

(10) WELL LOG:

Formation: _____ by color, character, size of material and structure, and show the _____ squares and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Gravel	0	5'
Gravel	5'	12'
Gravel and sand	12'	14'
Gravel and sand	14'	29'
Gravel and sand	29'	31'
Gravel and sand	31'	42'

This well was drilled in 1947,
and to our knowledge no record was made.
We have answered the questions
as best we could. The well
driller is deceased.

Work started 1947 Completed 1947

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME _____ (Print, firm, or corporation) (Type or print)

Address _____

(Signed: _____ (Well Driller)

Licence No. _____ Date _____

(1) OWNER: Name DEL MONTE CORPORATION Address P. O. Box 71, Toppenish, Wash. 98948
LOCATION OF WELL: County Yakima — NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 10 T 10 N. R. 20E W.M.
Bearing and distance from section or subdivision corner 220' East & 1150' South of North Quarter Corner Sec 10

(3) PROPOSED USE: Domestic ☐ Industrial ☒ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well 2
(if more than one) ...
New well ☐ Method: Dug ☐ Bored ☒
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 14 inches.
Drilled 238 ft. Depth of completed well 238 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 14 " Diam. from 0 ft. to 105 ft.
Threaded ☐ 10 " Diam. from 100 ft. to 218 ft.
Welded ☐ " Diam. from _____ ft. to _____ ft.
Perforations: Yes ☒ No ☐
Type of perforator used _____
SIZE of perforations 3/8 in. by 2 in.
12 Per ft. perforations from 50 ft. to 218 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☒ No ☐ Size of gravel: Unknown
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☐ No ☐ To what depth? _____ ft.
Material used in seal _____
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name Kimball Krogh Pump
Type: 8" HP 75

(8) WATER LEVELS: Land-surface elevation _____ ft.
above mean sea level. ...
Static level 20 ft. below top of well Date _____
Artesian pressure None lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? _____
Yield: 700 gal./min. with 20 ft. drawdown after 24 hrs.
" " " " " "
" " " " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)
Time Water Level Time Water Level Time Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Top Soil	0'	5'
Gravel	5'	12'
Cement Gravel	12'	29'
Boulder & Water	29'	31'
Cement Gravel	31'	52'
Loose Gravel & Water	52'	53'
Cement Gravel	53'	57'
Loose Gravel & Water	57'	58'
Cement Gravel	58'	67'
Loose Gravel & Water	67'	68'
Muddy Gravel	68'	73'
Yellow Clay	73'	78'
Loose Gravel & Water	78'	87'
Cement Gravel	87'	88'
Loose Gravel & Water	88'	97'
Muddy Gravel	97'	111'
Cement Gravel	111'	120'
Loose Gravel & Water	120'	121'
Cement Gravel	121'	142'
Loose Gravel & Water	142'	144'
Cement Gravel	144'	160'
Loose Gravel & Water	160'	161'
Shale & Gray Gravel	161'	180'
Loose Gravel, Sand, Water	180'	187'
Shale & Gray Gravel	187'	206'
Yellow Clay	206'	208'
Shale & Gray Gravel	208'	213'
Pea Gravel & Water	213'	218'
Yellow Clay	218'	236'

Work started 3-21 1942 Completed 3-25 1942

WELL DRILLER'S STATEMENT:


This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Well Driller Deceased
NAME _____ (Person, firm, or corporation) (Type or print)

Address _____

[Signed] _____ (Well Driller)

License No. _____ Date _____, 19 _____

ECY 050-1-20 (10 87) 1329-  3

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 33596

Water Right Permit No.

WOODWARD - CHURCH

(1) OWNER: Name WOODWARD - CHURCH

Address 405 S. E STREET, TOPPENISH WA

(2) LOCATION OF WELL: County YAKIMA

NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 10 T. 10 N., R. 20 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address)

(3) PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☐
☐ Irrigation ☐ Test Well ☒ Other ☐
☐ DeWater

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

(4) TYPE OF WORK: Owner's number of well (if more than one)

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 2 inches.
Drilled 21.9 feet. Depth of completed well 21'9" ft.

(6) CONSTRUCTION DETAILS: PVC

Casing installed: 2" Diam. from 0 ft. to 11 ft.

Welded ☐ Diam. from _____ ft. to _____ ft.

Line installed ☒ Diam. from _____ ft. to _____ ft.

Threaded ☒ Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☐

Type of perforator used

SIZE of perforations _____ in. by _____ in.

_____ perforations from _____ ft. to _____ ft.

_____ perforations from _____ ft. to _____ ft.

_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☒ No ☐

Manufacturer's Name HYDROPHILIC

Type PVC Model No. _____

Diam. 2 Slot size .10 from 11 ft. to 21 ft.

Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☐ Size of gravel

Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 8 1/2' ft.

Material used in seal ZENTONITE - CEMENT

Did any strata contain unusable water? Yes ☐ No ☒

Type of water? _____ Depth of strata _____

Method of sealing strata off

(7) PUMP: Manufacturer's Name

Type: _____ H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.

Static level 10' 10" ft. below top of well Date 3-13-90

Artesian pressure _____ lbs. per square inch Date _____

Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____

Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.

" " " "

" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time Water Level Time Water Level Time Water Level

Date of test _____

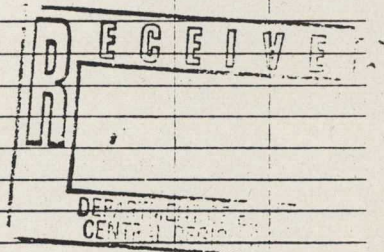
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.

Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.

Artesian flow _____ g.p.m. Date _____

Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☒

MATERIAL	FROM	TO
GRAVEL SAND TOPSOIL COBBLES	m	0 1
SANDY LOAM	S	1 4
SANDY CLAY	S	4 9
SAND	S	9 11
COBBLES GRAVEL	MH	11 15
SANDY GRAVEL	MS	15 25



Work started 3-13-90, 19. Completed 3-13-90, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME RIEBE WELL DRILLING INC

(PERSON, FIRM, OR CORPORATION)

(TYPE OR PRINT)

Address PO BOX 10866 YAKIMA WA 98909

(Signed) RIEBE License No. 0422

(WELL DRILLER)

Contractor's Registration 13221 Date 3-14, 19 90

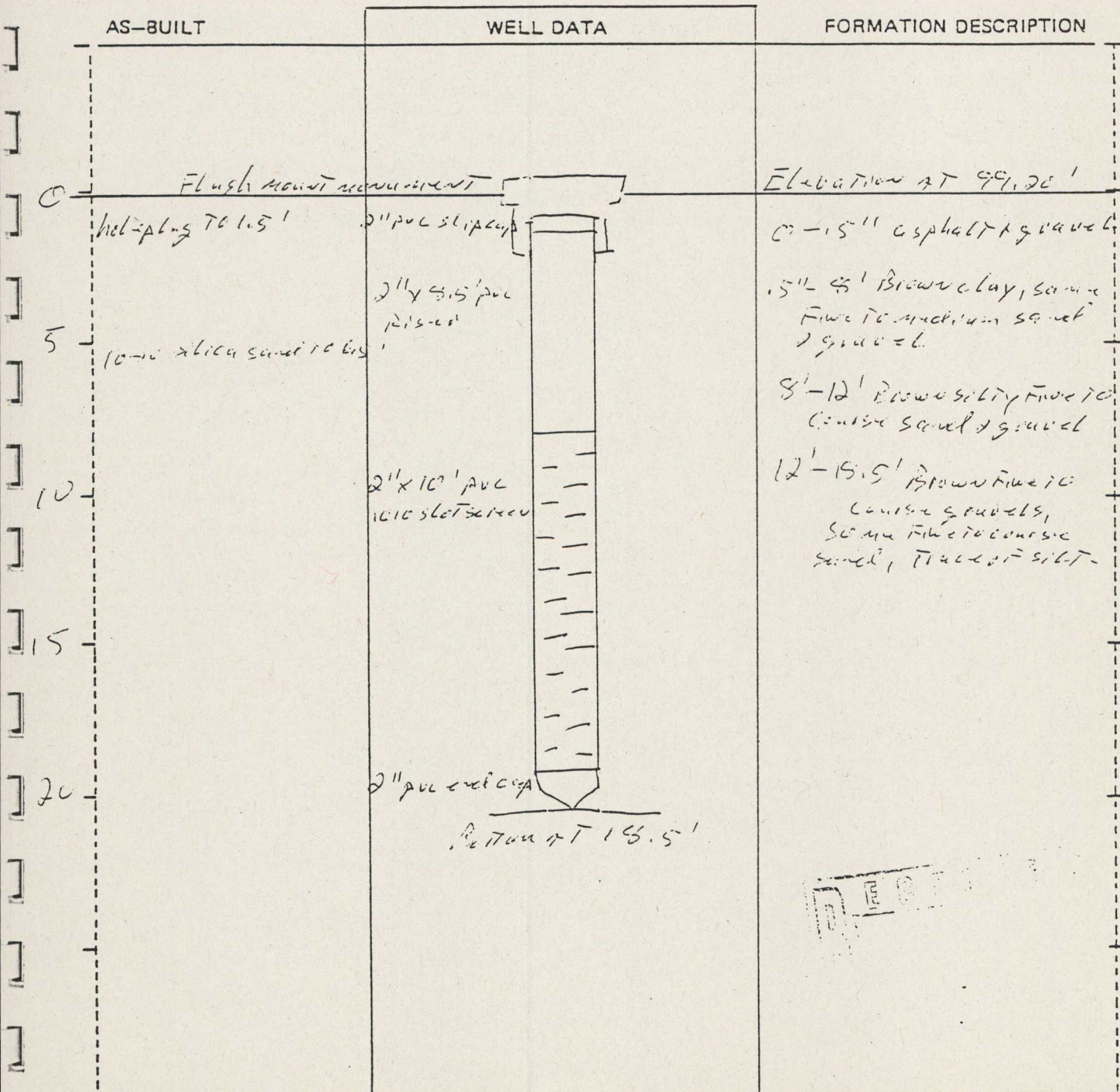
(USE ADDITIONAL SHEETS IF NECESSARY)

RESOURCE PROTECTION WELL REPORT

START CARD NO. C46735

PROJECT NAME: Tottenish National Ground
 WELL IDENTIFICATION NO. MW-1
 DRILLING METHOD: HSA 4.25" ID
 DRILLER: John W. Dalton 1777
 FIRM: Bullington Environmental Inc.
 SIGNATURE: John W. Dalton
 CONSULTING FIRM: R.E.I.
 REPRESENTATIVE: K. Tanshiguchi

LOCATION: T 10N R 20E SEC. 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: 111'
 WATER LEVEL ELEVATION: 111.5'
 INSTALLED: 8-11-92
 DEVELOPED: 8-13-92



SCALE: 1" = _____

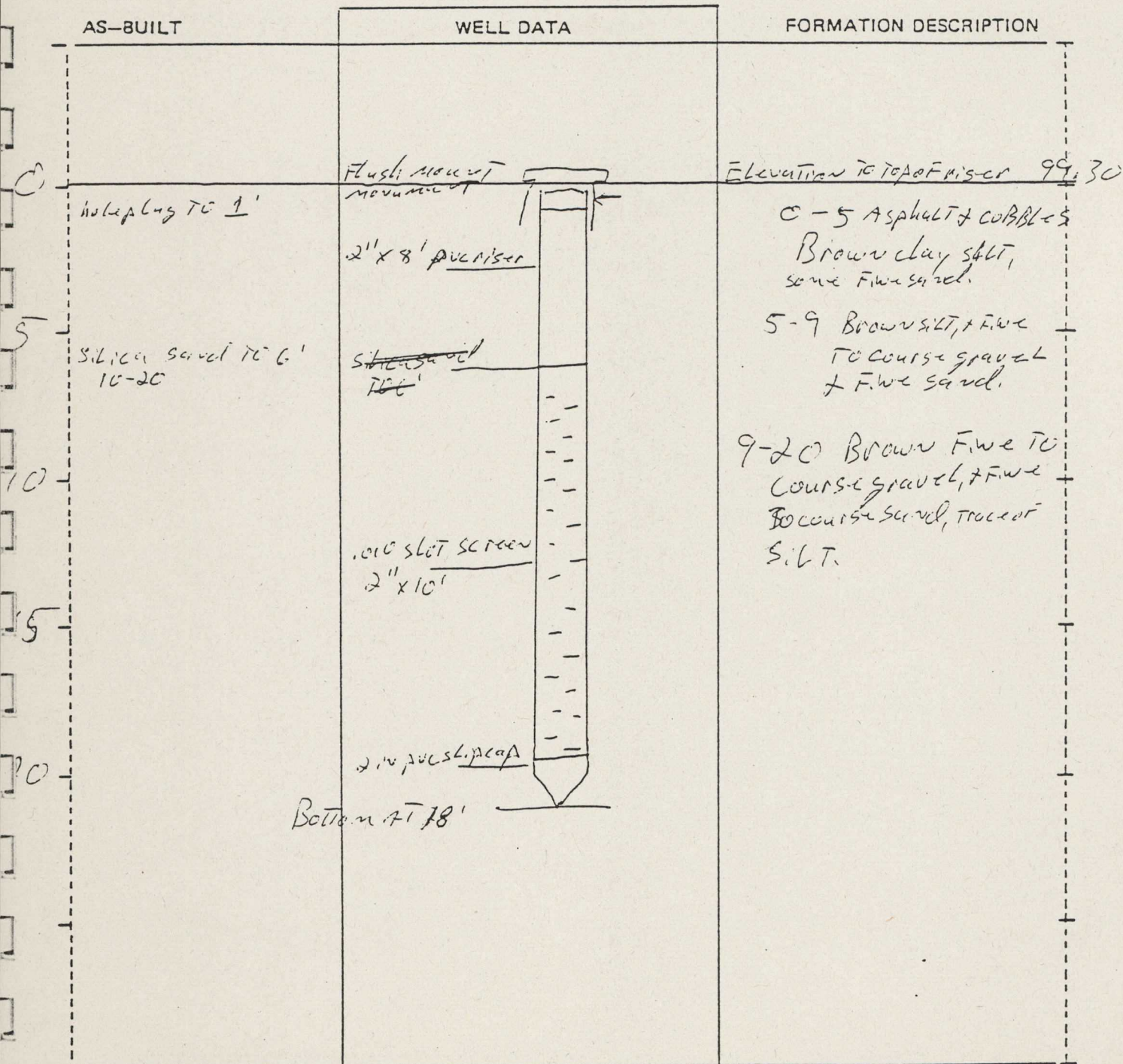
PAGE _____ OF _____

RESOURCE PROTECTION WELL REPORT

START CARD NO: 46935

PROJECT NAME: Tchewish National (Gur)
 WELL IDENTIFICATION NO. 11W-7
 DRILLING METHOD: 14 S.A. 4.25"
 DRILLER: John W. Dulan #1222
 FIRM: B.E.I.
 SIGNATURE: John W. Dulan
 CONSULTING FIRM: B.E.I.
 REPRESENTATIVE: K. Tchughishvili

LOCATION: T 10N, R 20E, SEC 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: _____
 WATER LEVEL ELEVATION: _____
 INSTALLED: 8-12-92
 DEVELOPED: 8-13-92



SCALE: 1" = _____

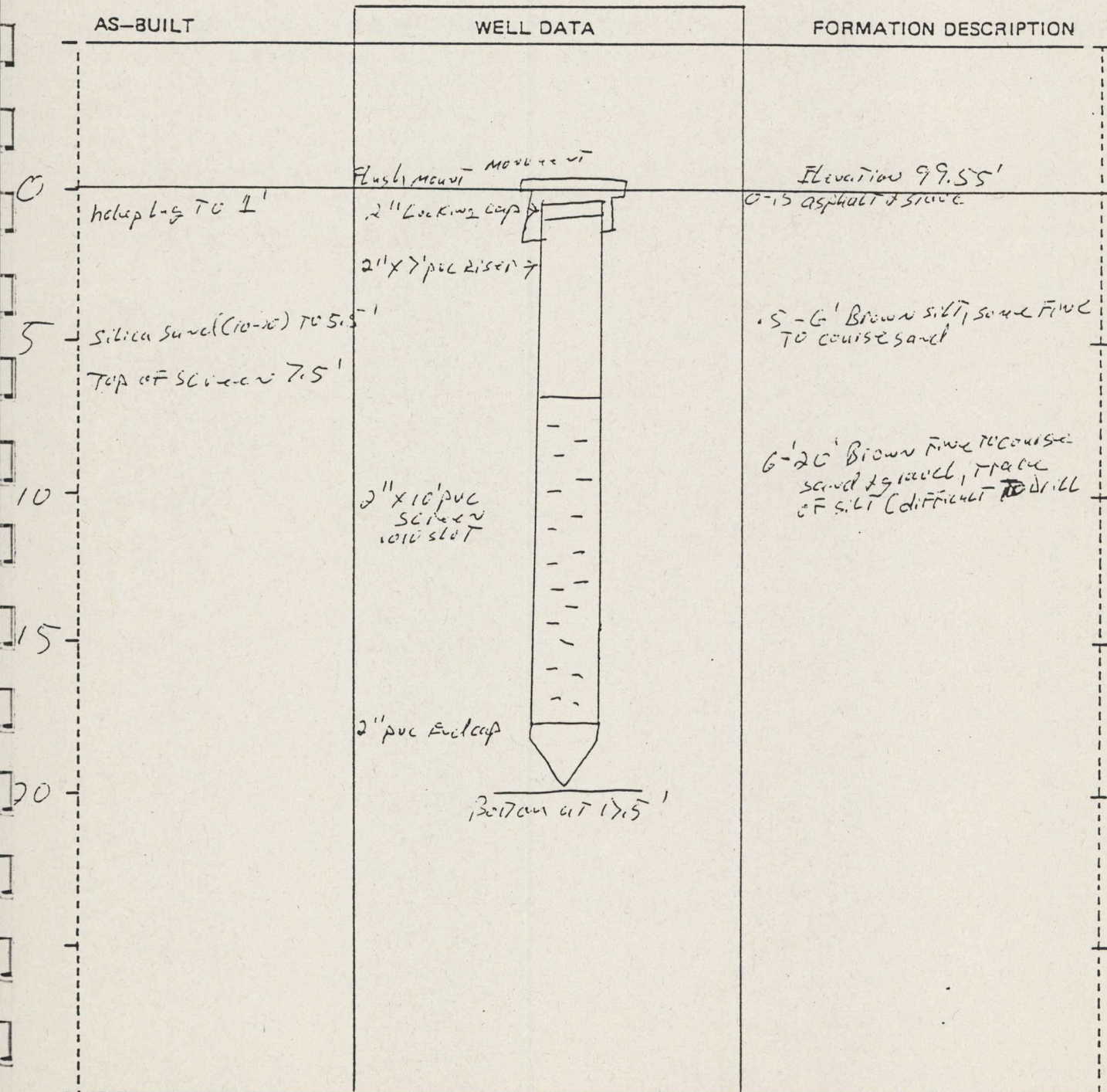
PAGE _____ OF _____

RESOURCE PROTECTION WELL REPORT

START CARD NOC 46935

PROJECT NAME: Tottenish National Ground
 WELL IDENTIFICATION NO. RTW-6
 DRILLING METHOD: H-S 4 4.25'
 DRILLER: John W. Dorian
 FIRM: BET
 SIGNATURE: John W. Dorian #1777
 CONSULTING FIRM: BET
 REPRESENTATIVE: K. Taghighi

LOCATION: T 10N, R 20E, SEC. 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: _____
 WATER LEVEL ELEVATION: _____
 INSTALLED: 8-12-92
 DEVELOPED: 8-13-92



SCALE: 1" = _____

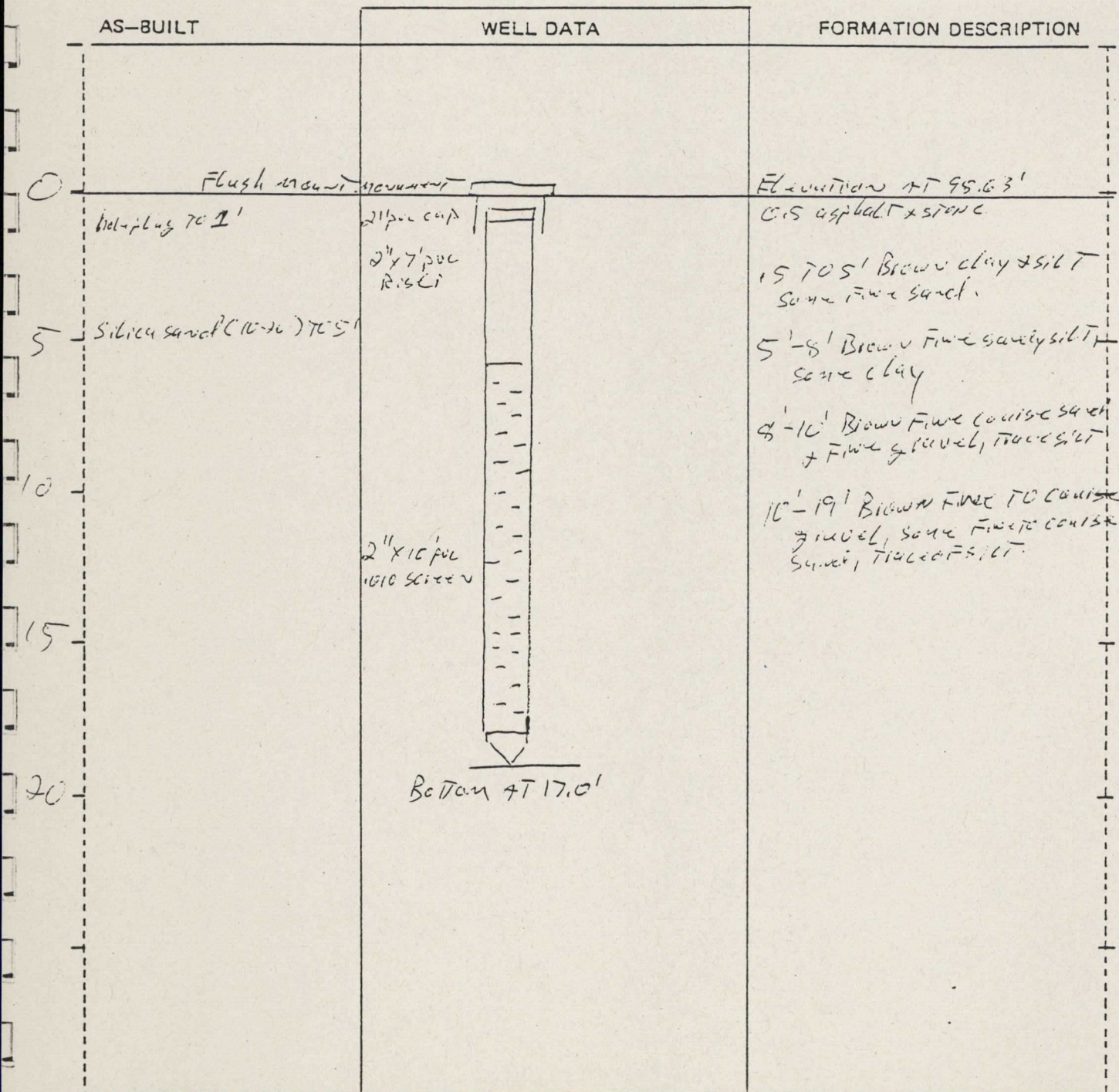
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RESOURCE PROTECTION WELL REPORT

START CARD NO. 046835

PROJECT NAME: TAPPANISH National Guard
 WELL IDENTIFICATION NO. NW-5
 DRILLING METHOD: HSA 4.25'
 DRILLER: John W. Dalton
 FIRM: B E F
 SIGNATURE: John W. Dalton
 CONSULTING FIRM: RIFF
 REPRESENTATIVE: E. T. Highgh

LOCATION: 10N, R 20E, SEC. 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: _____
 WATER LEVEL ELEVATION: 10.0'
 INSTALLED: 8-11-92
 DEVELOPED: 8-17-92



SCALE: 1" = _____

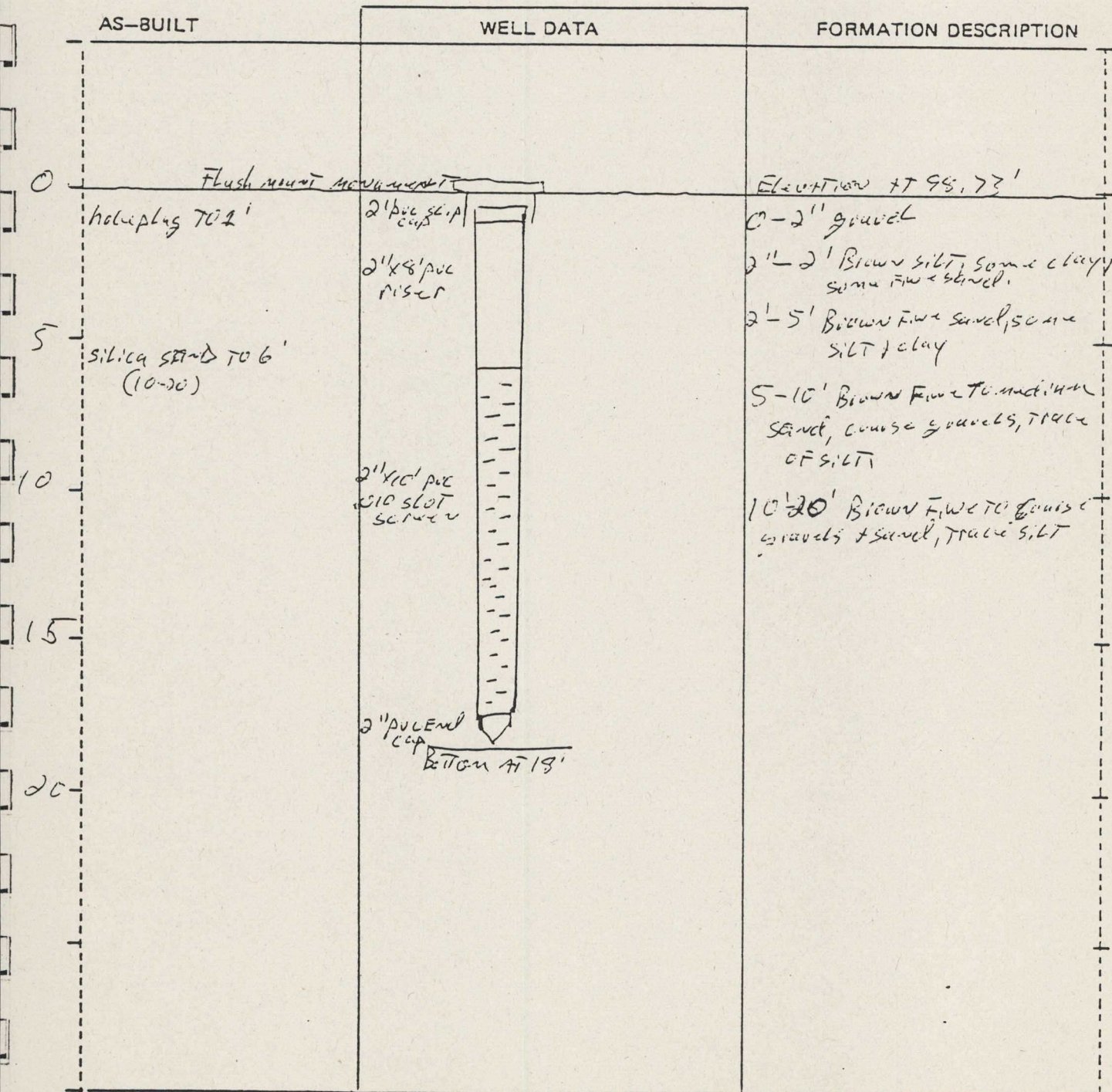
PAGE _____ OF _____

RESOURCE PROTECTION WELL REPORT

START CARD NO. 046935

PROJECT NAME: Toppenish National Ground
 WELL IDENTIFICATION NO. MW-4
 DRILLING METHOD: HSA 4.25"
 DRILLER: John W. Dolan
 FIRM: B-E-I
 SIGNATURE: John W. Dolan
 CONSULTING FIRM: B-E-I
 REPRESENTATIVE: E. Tahghighi

LOCATION: T 10N, R 20E, SEC. 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: _____
 WATER LEVEL ELEVATION: 10.0'
 INSTALLED: 8-11-92
 DEVELOPED: 8-13-92



SCALE: 1" = _____

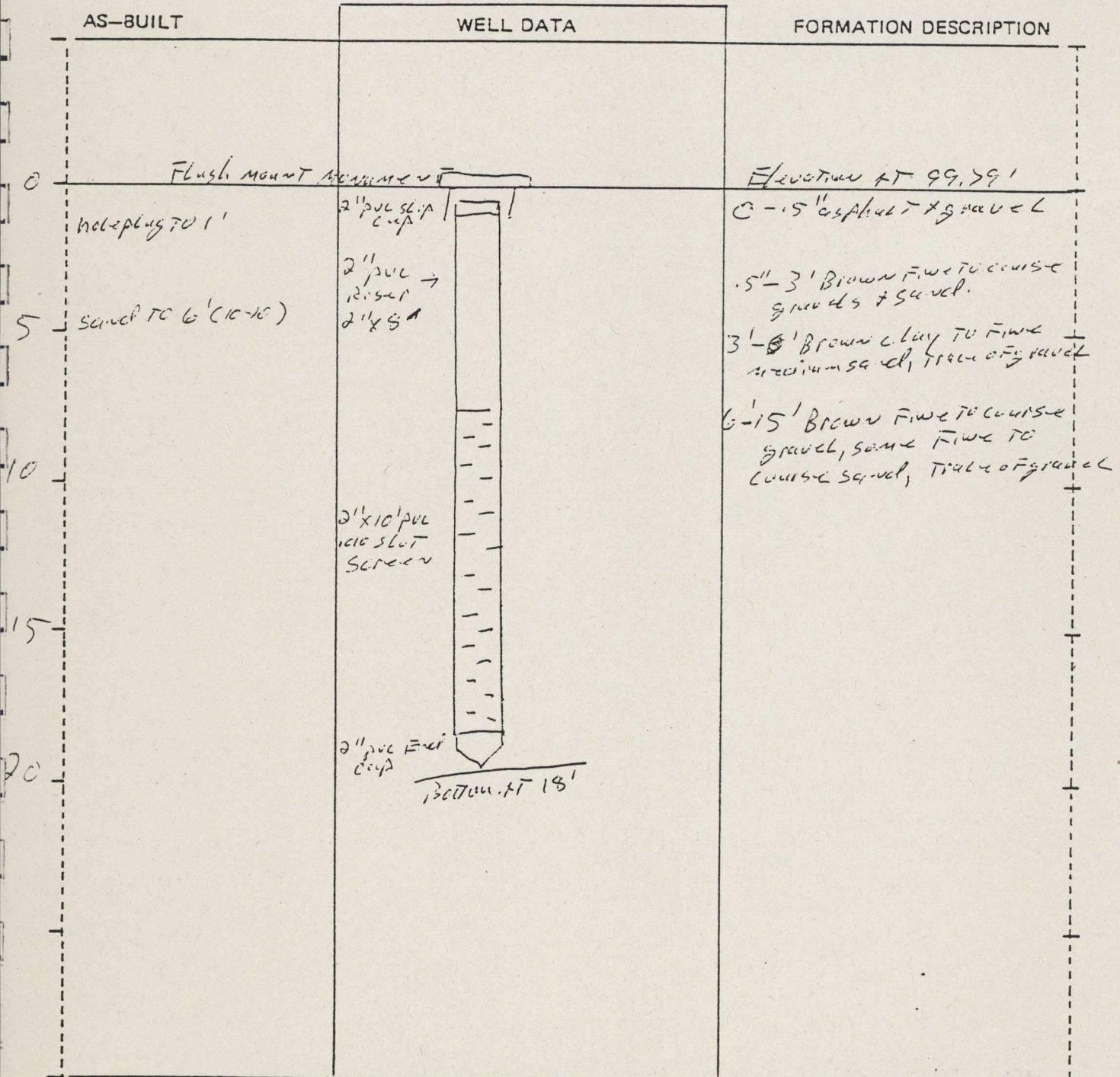
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RESOURCE PROTECTION WELL REPORT

START CARD NO. 046935

PROJECT NAME: Tottenham National Council
 WELL IDENTIFICATION NO. GW-3
 DRILLING METHOD: HSA 4.25"
 DRILLER: John W. Nolan
 FIRM: B.F.T.
 SIGNATURE: John W. Nolan
 CONSULTING FIRM: B.F.T.
 REPRESENTATIVE: K. Tabachnick

LOCATION: T 10N, R 20E, SEC. 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: 100'
 WATER LEVEL ELEVATION: 10.5'
 INSTALLED: 8-11-92
 DEVELOPED: 8-13-92



SCALE: 1"= _____

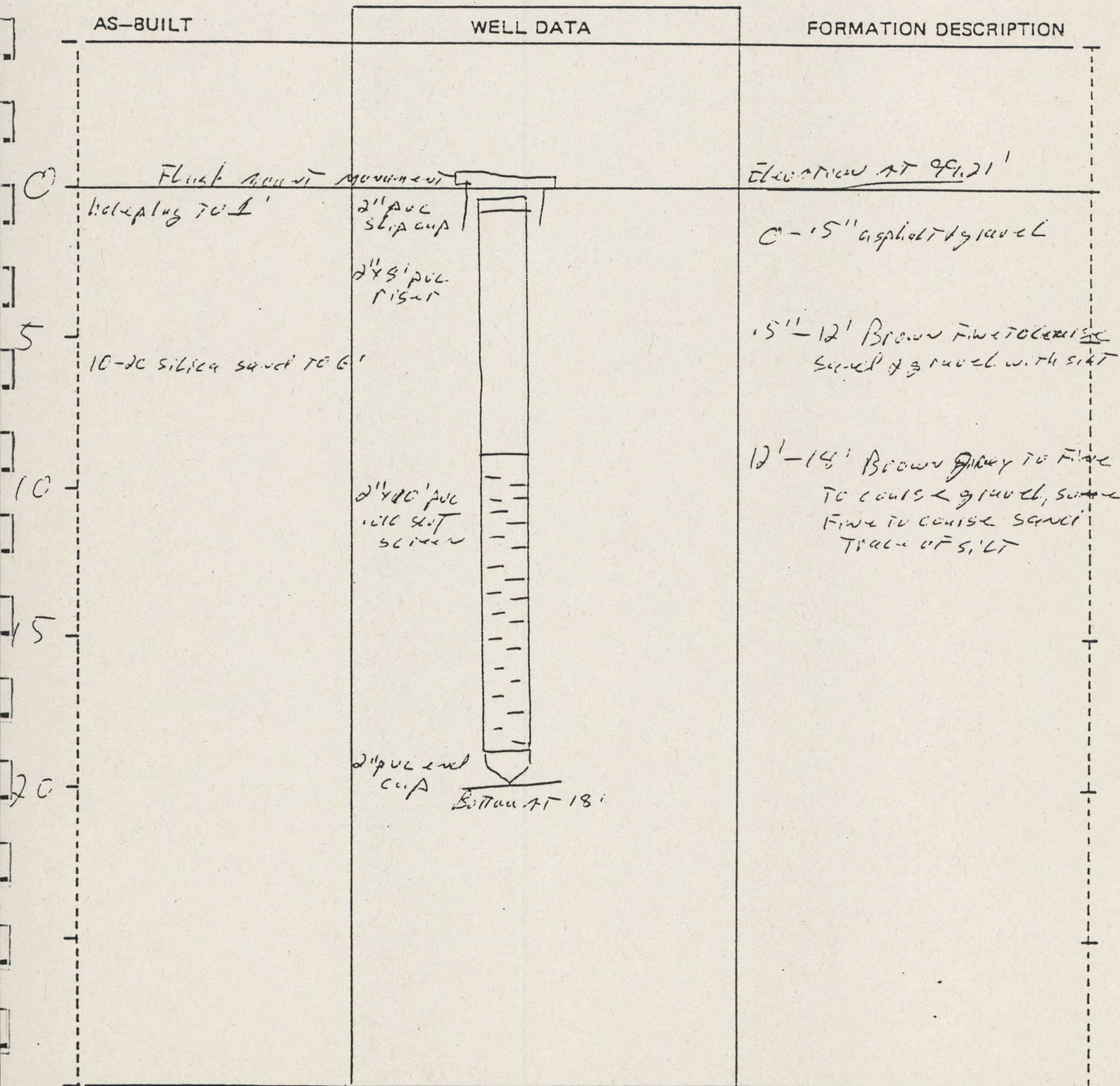
PAGE _____ OF _____

RESOURCE PROTECTION WELL REPORT

START CARD NO. 046935

PROJECT NAME: TOPPENISH NATIONAL CEMETERY
 WELL IDENTIFICATION NO. NW-2
 DRILLING METHOD: HSA 4.25" ID
 DRILLER: John W. Dabun
 FIRM: BEI
 SIGNATURE: John W. Dabun
 CONSULTING FIRM: BEI
 REPRESENTATIVE: K. Tahghighi

LOCATION: T 10N, R 20E, SEC. 10
 DISTANCE: _____ FT. FROM N/S SECTION LINE
 _____ FT. FROM E/W SECTION LINE
 DATUM: 100'
 WATER LEVEL ELEVATION: 10.5'
 INSTALLED: 5-11-92
 DEVELOPED: 5-13-92



SCALE: 1" = _____

PAGE _____ OF _____

OWNER: Name David Rowe Address Box 20, Toppensish, Va.

2) LOCATION OF WELL: County Yakima - 22 1/2 NW 1/4 Sec. 10 T. 8 N. R. 1 W. M.

Bearing and distance from section or subdivision corner

3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

1) TYPE OF WORK: Owner's number of well
(if more than one).....

New well	<input checked="" type="checkbox"/>	Method: Dug	<input type="checkbox"/>	Bored	<input type="checkbox"/>
Deepened	<input type="checkbox"/>	Cable	<input type="checkbox"/>	Driven	<input type="checkbox"/>
Reconditioned	<input type="checkbox"/>	Rotary	<input checked="" type="checkbox"/>	Jettied	<input type="checkbox"/>

5) DIMENSIONS: Diameter of well 6 inches.
 Drilled 65 ft. Depth of completed well 65 ft.

6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from 2.1 ft. to 57 ft.
Threaded ☐ " Diam. from _____ ft. to _____ ft.
Welded ☒ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒

Type of perforator used.....

SIZE of perforations in. by in.

..... perforations from ft. to ft.

..... perforations from ft. to ft.

..... perforations from ft. to ft.

Screens: Yes ☐ No ☒

Manufacturer's Name.....

Type..... Model No.....

Diam. Slot size from ft. to ft.

Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

7) PUMP: Manufacturer's Name.....
Type:..... H.P.....

8) **WATER LEVELS:** Land-surface elevation
above mean sea level ft.
Static level 3 ft. below top of well Date..... 1/1/55
Artesian pressure lbs. per square inch Date.....
Artesian water is controlled by.....
(Cap, valve, etc.)

9) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☐ No ☒ If yes, by whom?

Yield:	gal./min. with	ft. drawdown after	hrs.
1.0	1.0	1.0	1.0
1.0	1.0	1.0	1.0

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
.....
.....
.....

Date of test

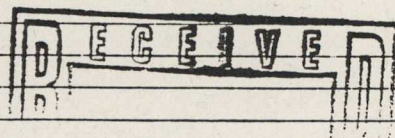
ailer test..... 20 gal./min. with ft. drawdown after hrs.

Artesian flow.....g.p.m. Date.....
 Temperature of water..... Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Topsoil	0	10
Overburden & coarse gravel	10	16
Hard gravel, & water	16	22
Hard, silt, gravel	22	35
Hard silt gravel, & water	35	47
Gravel, sand	47	54
Brown clay sand	54	57
Consolidated rock	57	60
Gravel & water	60	65



DEPARTMENT OF ECOLOGY
CENTRAL REGION OFFICE

Work started 1/7/86 19..... Completed 1/7/86 19.....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Verdon L. Rank
(Person, firm, or corporation) (Type or print)

Address 5701 Litenu Rd. Yakima, Wa. 98901

[Signed] Vernon L. Rank
(Well Driller)

License No. 0654 Date 1/23/36, 19

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 034219

Water Right Permit No. _____

OWNER: Name Jim Rathbun

Address 751 Meyers Rd., Toppenish

(2) LOCATION OF WELL: County Yakima SW 11 NW 10 Sec 11 T 10 N. R. 20 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 751 Meyers Rd., Toppenish

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐
☐ Irrigation ☐ Test Well ☐ Other ☐
☐ DeWater

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 50 feet. Depth of completed well 50 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 Diam. from +1 ft. to 50 ft.
Welded ☒ Diam. from _____ ft. to _____ ft.
Liner installed ☐ Diam. from _____ ft. to _____ ft.
Threaded ☐ Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☒

Type of perforator used _____

SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☒

Manufacturer's Name _____

Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.

Material used in seal Bentonite

Did any strata contain unusable water? Yes ☐ No ☒

Type of water? _____ Depth of strata _____

Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 8 ft. below top of well Date 7-13-90
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
------	-------------	------	-------------	------	-------------

Date of test _____

Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.

Airtest 100 gal./min. with stem set at 50 ft. for 1 hrs.

Artesian flow _____ g.p.m. Date 7-13-90

Temperature of water 59 Was a chemical analysis made? Yes ☐ No ☒

Work started 7-13-90 19. Completed 7-13-90 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Water Wells Drilling INC.
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 5503 Abtatum Rd., Yakima 98903

(Signed) Jim Rathbun License No. 1435
(WELL DRILLER)

Contractor's Registration No. WATER WD112QB Date 7-15-90 19

(USE ADDITIONAL SHEETS IF NECESSARY)

(USE ADDITIONAL SHEETS IF NECESSARY)

STATE OF WASHINGTON

Permit No. _____

1) OWNER: Name Del Monte Corp. Address 49 E. Third, Toppenish, WA 98948
LOCATION OF WELL: County Yakima — SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 11 T 10 N. R. 20 W.M.
bearing and distance from section or subdivision corner

3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☒ Other ☐

4) TYPE OF WORK: Owner's number of well 2
(if more than one)...

New well <input checked="" type="checkbox"/>	Method: Dug <input type="checkbox"/>	Bored <input type="checkbox"/>
Deepened <input type="checkbox"/>	Cable <input type="checkbox"/>	Driven <input type="checkbox"/>
Reconditioned <input type="checkbox"/>	Rotary <input checked="" type="checkbox"/>	Jettied <input type="checkbox"/>

5) DIMENSIONS: Diameter of well 6 inches.
Drilled 18 ft. Depth of completed well 17 ft.

6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from +3 ft. to 17 ft.
Threaded ☐ 4" PVC Diam. from +1 ft. to 2 ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒

Type of perforator used.....

SIZE of perforations in. by in.

..... perforations from ft. to ft.

..... perforations from ft. to ft.

..... perforations from ft. to ft.

Screens: Yes ☒ No ☐

Manufacturer's Name.....
Type.....PVC..... Model No.....
Diam. 4 Slot size 20 from 2 ft. to 17 ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 2 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

7) PUMP: Manufacturer's Name.....
Type: H.P.....

8) **WATER LEVELS:** Land-surface elevation
above mean sea level.....12/10/87 ft.
static level.....6 ft. below top of well Date.....
artesian pressure..... lbs. per square inch Date.....
Artesian water is controlled by.....
(Cap. valve, etc.)

9) WELL TESTS: Drawdown is amount water level is lowered below static level

Was a pump test made? Yes ☐ No ☐ If yes, by whom? _____

yield: 45 gal./min. with _____ ft. drawdown after _____ hrs.

Estimated Airlift
recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
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Time	Water Level	Time	Water Level	Time	Water Level
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1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353</
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Date of test

Sailer test..... gal./min. with.....ft. drawdown after.....hrs.

Artesian flow.....g.p.m. Date.....

temperature of water..... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Top Soil	0	6
Sand and Gravel	6	18

3' of 4" PVC Liner installed

6" Drive Shoe utilized

3½ Hours Developing time

Work started 12/9 19 87 Completed 12/10 19 87

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME PONDEROSA DRILLING & DEVELOPMENT, INC.
(Person, firm, or corporation) (Type or print)

Address E. 6010 Broadway, Spokane, WA 99212

[Signed] Louie Hanner (Well Driller)

License No. 1472 Date Dec. 10 1987

SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 11 T. 10 N. R. 20 W.M.

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